

# **Snohomish County Medical Examiner's Office**

## **2008 Annual Report with Statistics from 2003 through 2008**





**Snohomish County  
Medical Examiner's Office**

**Aaron Reardon**  
County Executive

(425) 438-6200  
FAX (425) 438-6208

9509 29th Ave. West  
Everett, WA 98204

December 30, 2009

Honorable Aaron G. Reardon  
Snohomish County Executive  
County Administration Building  
Everett, Washington 98201

Re: Transmittal of 2008 Annual Statistical Report of the Medical Examiner's Office

Dear County Executive Reardon:

I am pleased to transmit the 2008 Annual Statistical Report of the Medical Examiner's Office of Snohomish County. This report is organized into three sections: Information about the Office, Explanation of Terms, and Statistical Information.

The Medical Examiner's Office serves the public health, safety, law and justice, and the family of the deceased. Forensic pathology is the specialty field of medicine involving the application of the principles of medicine and pathology in determining the cause and manner of sudden, unexpected, unexplained, and medically unattended deaths. Complete and timely investigations of death are necessary so that the innocent are exonerated, murder is recognized, criminal and civil proceedings are provided with documented, sound and impartial medical evidence, public health and safety hazards, medical hazards and industrial hazards are recognized. Complete and timely investigations of death also provide the family of the deceased with medical data enabling them to receive adequate medical and genetic counseling from their private physician and information necessary for expeditious settlement of insurance claims, estates and civil proceedings.

It is my hope that this report will increase public understanding of the Medical Examiner's Office and the public services this office performs, and will provide useful and informative statistical information. As we review the statistics within this report, we are reminded that each one represents a person who has died. Each will be remembered by a surviving relative or friend who can be assured the investigation of their loved one's death was conducted with respect and confidentiality.

Thank you for the support you have given this office. I will be happy to respond to any questions or comments about the information contained in this report.

Sincerely,

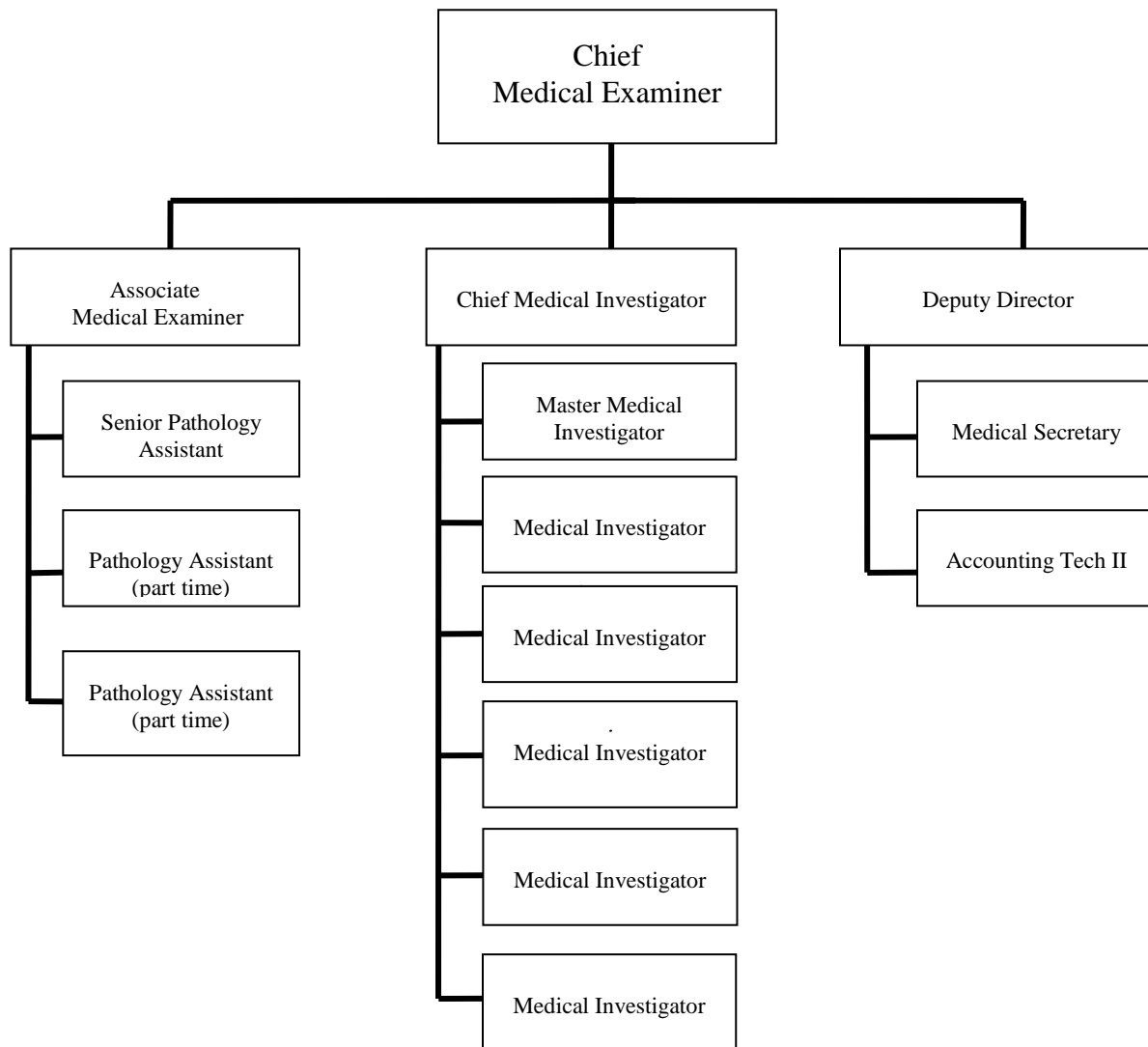
Norman Thiersch, M.D.  
Chief Medical Examiner

## **2008 INFORMATION ABOUT THE OFFICE**

1. The office of the Snohomish County Medical Examiner was created in June 1987 and operates under the Snohomish County Executive in accordance with statutes, authority, and jurisdiction of the State of Washington.
2. The Medical Examiners are licensed physicians who have specialized training and board certification in the field of forensic pathology.
3. The 2008 staff consisted of thirteen full-time and two half-time employees. See organization chart on next page.
4. At least one medical investigator is on duty and a forensic pathologist is on-call 24 hours a day, seven days a week.
5. The Medical Examiner's Office is located at Paine Field at 9509 29<sup>th</sup> Avenue West in Everett, Washington 98204. The office phone number is (425) 438-6200.
6. Office hours are 9:00 a.m. to 5:00 p.m. Monday through Friday.
7. The Medical Examiner's Office serves a resident population of 696,600. This includes all cities and all unincorporated areas of Snohomish County.
8. The geographical jurisdiction of the Medical Examiner's Office extends over 2,090 square miles. It includes Naval Station Everett, Boeing, the Tulalip Reservation and casino, Monroe Fair Grounds, the Snohomish County Jail and the Washington State Reformatory (WSR) including the WSR Hospice center in Monroe.

# SNOHOMISH COUNTY MEDICAL EXAMINER'S OFFICE 2008 Organization Chart

This chart reflects a staff of 14 FTE



## **MISSION**

The mission of the Medical Examiner's Office is to provide the citizens of Snohomish County a modern medicolegal death investigation system and to assure that their interests and those of their loved ones are safeguarded during their time of personal loss.

## **PURPOSE**

The primary purpose of the Snohomish County Medical Examiner's Office is to determine the cause and manner of death of persons who die suddenly, violently, or unexpectedly while in apparent good health within the geographic boundaries of the county and who fall under the jurisdiction of the Medical Examiner. (RCW 68.50).

## **FUNCTION AND ROLE**

The main function of the Medical Examiner is the determination of the cause and manner of death which are of concern to the public health, safety and welfare. The investigation and determination of cause and manner of death is performed by highly trained technical staff and the application of modern medicine and forensic science to the death investigation process. There are several reasons why an accurate determination of the cause and manner of death is essential to our society:

1. The innocent shall be exonerated.
2. Murder shall be recognized.
3. Criminal and civil court proceedings will be provided with documented, sound and impartial medical evidence.
4. Unrecognized hazards to public health and safety shall be revealed.
5. Industrial hazards shall be exposed.

## **SEPARATE AND INDEPENDENT AUTHORITY AND JURISDICTION**

While the Medical Examiner's Office works hand-in-hand with law enforcement, the prosecuting attorney and various health agencies, the Medical Examiner has fully separate and independent authority and jurisdiction over the medical investigation of deaths, including, but not limited to:

- Apparent natural deaths,
- Accidents,
- Suicides,
- Homicides,
- Officer involved and in-custody deaths,
- Deaths of children.

## **LEGISLATIVE AUTHORITY**

The jurisdiction of the Medical Examiner is established by Washington State Law and Snohomish County Code:

RCW 36.16 -- County Officers  
RCW 36.24 -- County Coroner  
RCW 36.39 -- Disposition of Indigent Remains  
RCW 68.50 -- Human Remains  
RCW 73.08.070 -- County Burial of Indigent Deceased Veterans  
WAC 248-40-040 -- Handling and Care of Human Remains  
WAC 248-40-050 -- Transportation of Human Remains  
SCC 2.74 -- Snohomish County Medical Examiner

## **EXPLANATION OF TERMS**

### **Death Investigations, Autopsies and Inspections**

The Medical Examiner's statutory functions include but are not limited to the investigation of death and performance of postmortem examinations, as set forth in the statutes of the State of Washington.

The Medical Examiner has statutory authority to perform postmortem examinations. These include examinations of bodies at scenes, external examinations (called inspections) and forensic autopsies (external and internal examinations) at the Medical Examiner's Office. Dental and anthropological examinations and collection of physical material or samples having potential evidentiary value may be a part of the examinations. The term autopsy means to "see for one's self". The purpose of dissection of the human remains is to allow direct observation of the body by the pathologist. The autopsy involves observing the external and internal structures of the body to gain information about that individual and that individual's death. Family permission is not required by the Medical Examiner, as might be required in a hospital setting. This allows the Medical Examiner to function independently to serve the public. The goals of the forensic autopsy are to discover information that cannot be obtained in other ways, to provide independent confirmation of what is known or suspected, and to provide a variety of means of documenting findings. It is not required to perform autopsies in all cases. The authority to perform autopsies is used judiciously where the examinations are needed to gather information critical to the investigation in the interest of the general public. In cases of natural death, where a forensic autopsy is not required by the Medical Examiner, arrangements for private (hospital-type) autopsies may be sought by the family or by a physician with family permission.

### **Death Certification**

The Medical Examiner's office does not issue death certificates; Vital Statistics (Telephone number: 425-339-5280) at the Snohomish Health Department issues death certificates. The vast majority of deaths in Snohomish County are due to natural causes. Most deaths can and should be certified by one of the deceased individual's physicians. The Medical Examiner's Office is only responsible for completing a limited number of entries on the death certificate form in cases of sudden or violent death. Further entries are the responsibility of the funeral director and the local Vital Statistics Registrar. The completed death certificate is filed with Vital Statistics. Copies of death certificates may only be obtained from Vital Statistics. Certification of the cause and manner of death by the Medical Examiner follows the guidelines established by the Washington State Department of Health and the National Center for Health Statistics of the Centers for Disease Control and Prevention. The certification of cause and manner of death is based on the preponderance of evidence (more probable than not, or reasonable medical probability, not necessarily beyond everyone's doubt). No Medical Examiner case is ever "closed". If new information concerning a past case is provided to the Medical Examiner, the information will be reviewed and considered. If the new information changes the preponderance of evidence, the entries on the death certificate can be amended. If the new information does not change the preponderance of evidence, the death certificate entries remain as is.

## **Cause of Death**

The cause of death statement is used to indicate the medical cause of death, listing the disease(s) or injuries that caused death. Specific cause of death information is recorded on the death certificate and is entered into the Vital Statistics System of the State of Washington. Sudden Infant Death Syndrome (SIDS) is used as a cause of death listing for cases of sudden death during infancy (first 12 months of life) that meet current criteria and have no competing cause of death identified by autopsy, review of medical history, and scene investigation. Why an accident occurred, why a person took their own life, or why someone killed another person are not the concern of the Medical Examiner for the purpose of death certification.

## **Manner of Death: Classifications**

The only death certificate options for the classification of manner of death are: Natural, Accident, Suicide, Homicide, Undetermined, and Pending. The determination of manner of death is made by the Medical Examiner for death certification. Manner is a way to categorize death as required by the Washington State Department of Health.

**Natural** is defined as death caused solely by disease. If natural death is hastened by injury (such as a fall or drowning in a bathtub), the manner of death is not considered natural. Sudden infant death syndrome (**SIDS**) is a subset of natural death; it is the sudden death of an infant under one year of age which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history.

**Accident** is defined for Medical Examiner death certification purposes as an unnatural death resulting from an inadvertent chance happening. Traffic related fatalities (involving vehicles used for transportation on any public roadway) are classified as accidents. Deaths related to the deliberate or purposeful use of vehicles as weapons, rather than transportation, are classified as homicides. On-the-job injury related deaths are referred to as industrial deaths and are classified as accidents. Deaths related to illicit drug or excessive medication use, in the absence of evidence specifically supporting the conclusion of the manner of death being homicide or suicide, are classified as accident. **Traffic** deaths are a subset of accidental deaths, but deaths resulting from traffic accidents are reported separate from other accidental deaths for statistical purposes. A traffic death is defined as an unintentional death of driver, passenger, or pedestrian involving a motor vehicle on public roadways. Accidents involving motor vehicles on private property (such as driveways) are not included in this category and are classified non-traffic vehicular deaths. **Complication of Therapy** deaths are a subset of accidental deaths occurring during or predominantly due to complications of medical/surgical therapeutic or diagnostic procedures.

**Suicide** is defined for Medical Examiner death certification purposes as a death from self-inflicted injury with evidence of intent to die. Evidence of intent includes an explicit expression, such as a suicide note or verbal threat, or an act constituting implicit intent. Self-inflicted contact/close range gunshot wounds (particularly of the head, chest, or abdomen) are recognized as having very high potential for lethality, and are considered to be implicit evidence of intent to die.

**Homicide**, as used for the Medical Examiner's certification of manner of death, is defined as the action of one person directly causing the death of another. A death that occurs during and is



related to the commission of a felony is also considered homicide. A violent death may stem from some kind of deliberate or purposeful action, but intent to cause death need not be present or proven for the classification of the manner of a death as homicide. Homicide and murder are not the same. All murders are homicides, not all homicides are murder. "Murder" is not an acceptable manner of death classification for death certification purposes. "Murder" is a term used under specific conditions in criminal law matters and as a general concept.

**Undetermined** is listed as the manner of death classification in only a small number of cases each year. Undetermined is an appropriate designation for cases that have very little available information about the circumstances surrounding death (e.g., partial skeletal remains) or where known information equally supports, or conflicts with, more than one manner of death. An undetermined manner of death is assigned to cases of unnatural death when a clear preponderance of evidence supporting a specific manner (homicide, accident, or suicide) is not available.

**Pending Investigation** may be listed temporarily on the death certificate for cause and/or manner when additional investigation, information and/or test results are required for certification.

## General Statistics

In 2008 a total number of 3,979 deaths were reported to the Medical Examiner's Office. Each reported case received basic investigative review for the purpose of determining jurisdiction. Jurisdiction was declined (NJA cases) in 3,273 deaths. Jurisdiction was assumed (SCME cases) and further investigations were conducted in 706 cases. Scene visits were made by medical investigators and/or a medical examiner in 529 cases. Postmortem examinations by forensic pathologists (autopsies and external inspections) were conducted in 540 cases. Toxicology examinations were obtained for 528 cases.

Specific cause of death information is recorded on the death certificate and is entered into the Vital Statistics System of the State of Washington.

### Deaths Reported to the Medical Examiner's Office

Description	2003	2004	2005	2006	2007	2008
Snohomish County Population	637,500	644,800	655,800	671,800	686,300	696,600
Reported Deaths	2311	2392	3110	3484	3854	3979
No Jurisdiction Assumed (NJA)	1745	1851	2543	2866	3218	3273
Investigations conducted (SCME)	565	532	564	614	636	706
Scenes Investigated	*	*	440	467	493	529
Bodies Transported to the Morgue	*	*	445	481	519	552
Autopsies	302	322	319	344	390	431
External examinations (only)	*	*	115	119	114	109
Cases where toxicology performed	*	*	391	465	483	528
Unidentified Human Remains	*	*	0	0	1	2
Tissue Donations	*	3	16	15	14	36
Unclaimed bodies	*	8	11	22	28	36
L & I Cases	*	*	5	6	4	14
Private autopsy - ME Jurisdiction.	*	*	1	1	0	0
Drug, Alcohol or Poison Caused	*	79	88	105	125	123
Exhumations	0	0	0	0	0	1
Examinations for other Counties **	7	11	10	14	7	18

\* The office was not collecting this data at this time.

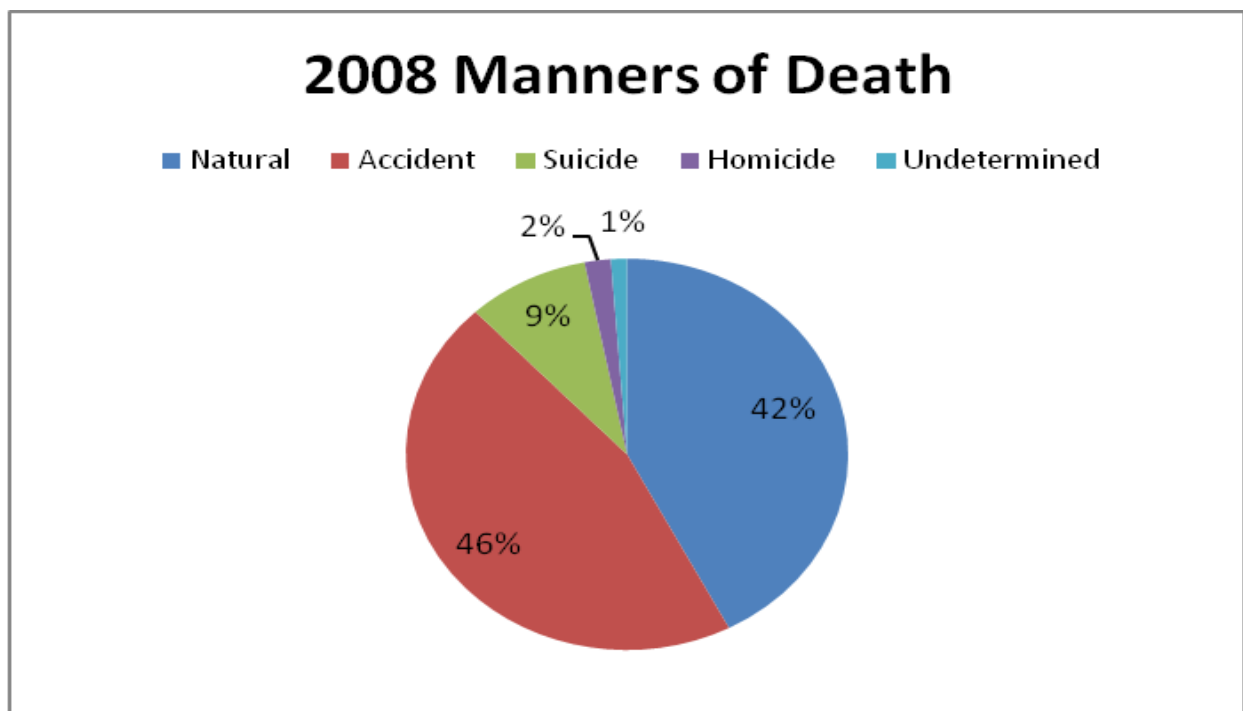
\* \* Snohomish County Medical Examiner Services to other counties are shown here for informational purposes. They are not included in the balance of this report.

### Snohomish County Deaths of Medical Examiner's Office Jurisdiction

<b>Manners of Death</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Natural	242	200	180	218	243	289
Accident	218	216	260	278	253	311
Suicide	71	77	69	65	72	61
Homicide	12	18	20	16	19	13
Undetermined	22	13	12	12	20	8
<b>Total Deaths of Jurisdiction</b>	<b>565</b>	<b>524</b>	<b>541</b>	<b>589</b>	<b>607</b>	<b>682</b>

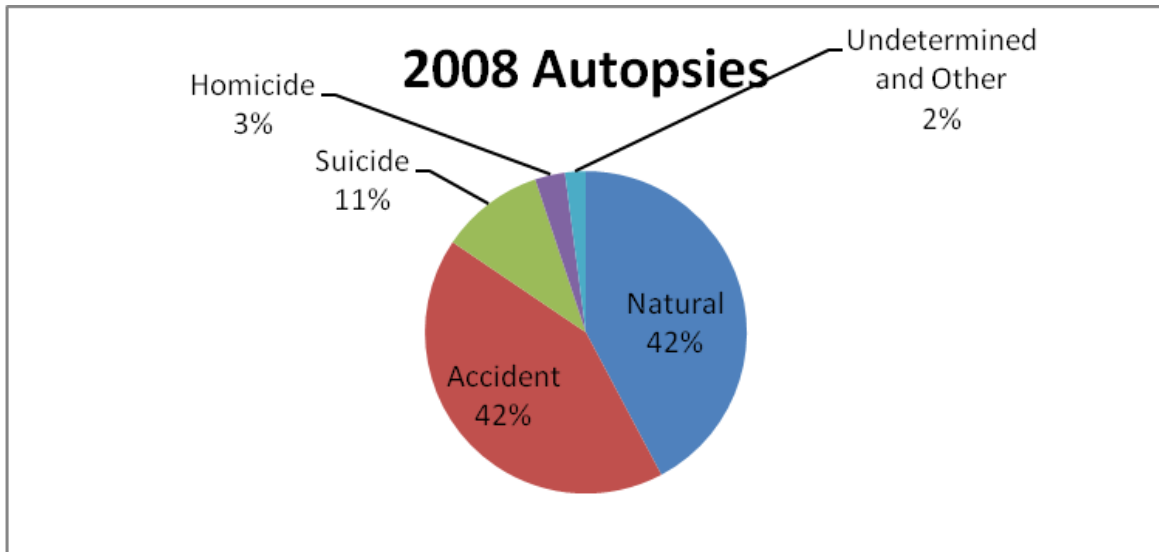
Other *		8	23	25	29	24
---------	--	---	----	----	----	----

\* Other cases were investigated, such as non-human bones, which resulted in no new human death report.



### JURISDICTION DEATHS - AUTOPSIES PERFORMED

<b>Manners of Death</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Natural -Excluding SIDS	98	94	93	111	144	181
Natural - SIDS	4	10	3	3	2	1
Accident (Non-traffic )	92	119	124	124	124	156
Accident -Traffic	38	23	41	38	27	23
Accident - Complication of Therapy					3	3
Suicide	37	47	29	39	52	45
Homicide	13	18	20	16	19	13
Undetermined and Other	17	11	9	13	19	9
<b>Total Cases</b>	<b>299</b>	<b>322</b>	<b>319</b>	<b>344</b>	<b>390</b>	<b>431</b>



## **Manner of Death: Natural Deaths**

The Medical Examiner has jurisdiction over the investigation of deaths that are determined to be from natural causes when death occurred suddenly, when in apparent good health, when no other physician is available to certify death, the death occurs in jail or prison, or the body is unclaimed. Natural deaths account for 42% of deaths investigated by the Medical Examiner's Office. Various forms of cardiovascular disease are the leading causes of natural death cases investigated by the Medical Examiner.

In 2008 the Medical Examiner's Office investigated 289 natural deaths, including 5 infant (under the age of one year) deaths.

### **Natural Deaths by Disease Category**

<b>Disease Category</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Cardiovascular	159	131	108	139	157	181
Central Nervous System	23	6	6	6	2	8
Coagulopathy		1		3	5	2
Endocrine (includes Diabetes)	3	8	6	7	7	8
Gastro-Intestinal	4	5	3	4	4	11
Infectious Disease	1	2	3	4	5	5
Renal (Kidney)	3	1	2	1	5	4
Hepatic (Liver)	17	14	11	18	25	24
Malignancy	4	6	12	10	11	11
Respiratory	20	16	21	21	17	27
SIDS	4	9	3	3	2	1
Unknown/Other	4	1	5	2	3	7
<b>Totals</b>	<b>242</b>	<b>200</b>	<b>180</b>	<b>218</b>	<b>243</b>	<b>289</b>

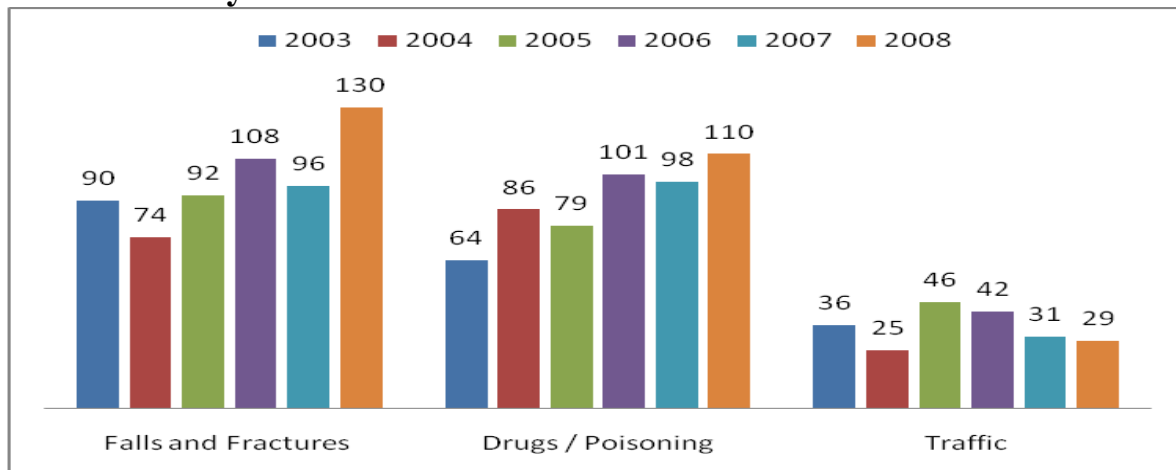
## Manner of Death: Accident

There were 311 accidental deaths in Snohomish County in 2008. Accidental deaths account for 46% of unexpected, unexplained deaths investigated under the jurisdiction of the Medical Examiner's Office. Traffic deaths (29) account for 9% of all accidental deaths in 2008. Of the 282 non-traffic accidental deaths in 2008, 39% (110) were caused by acute intoxication of drugs or poison; 46% (130) were from falls/fractures which made up the largest category of accidental deaths. 95% (123 of 130) of the deaths from falls/fractures occurred in people over 60 years of age.

### Accidental Deaths by Cause of Death

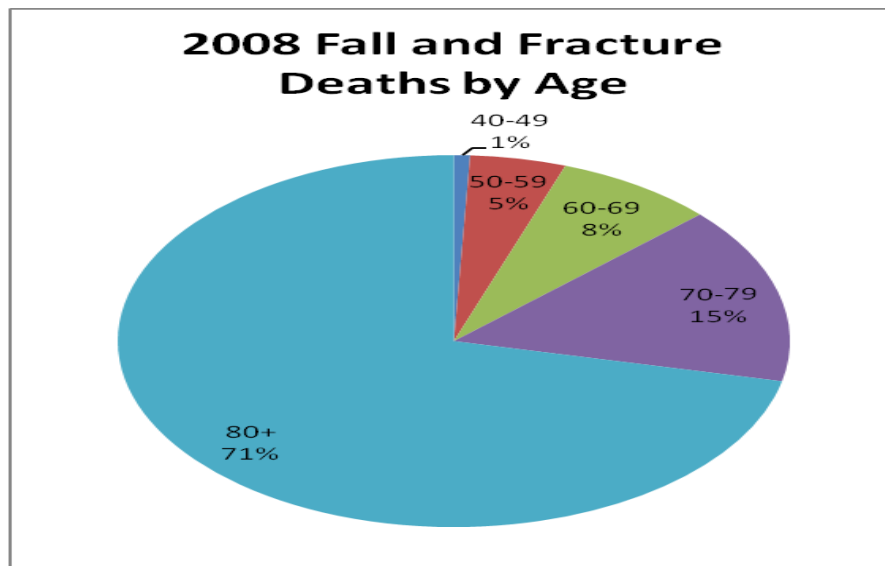
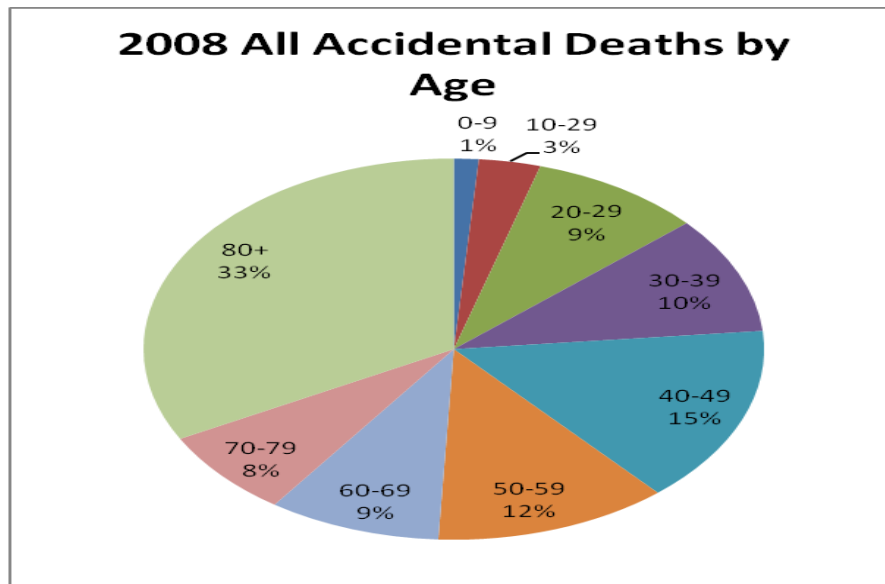
Method(Cause) of Death	2003	2004	2005	2006	2007	2008
Airplane or Helicopter	1	3	6		1	2
Asphyxia: Choking	3			3	8	3
Asphyxia: Mechanical, Positional, Traumatic	3	2	3	3	3	10
Blunt Impact or crushing	1	5	7	6	2	5
Carbon Monoxide	1		1		1	1
Complication of Therapy		4	2	2	3	3
Drowning	8	10	17	7	3	7
Drugs / Poisoning	64	86	79	101	98	110
Electrocution	2	1				
Falls and Fractures	90	74	92	108	96	130
Fire	2	3	3	2	1	6
Hypothermia		2		1	2	4
Non-traffic Vehicle			2		3	1
Traffic	36	25	46	42	31	29
Train	1			2	1	
Other	6	1	2	1		
<b>Totals</b>	<b>218</b>	<b>216</b>	<b>260</b>	<b>278</b>	<b>253</b>	<b>311</b>

### Three Primary Causes of Accidental Deaths 2003-2008



### Accidental Deaths by Age

Years of Age	2003	2004	2005	2006	2007	2008
0-9	2	1	5	3	1	4
10-19	9	9	9	13	10	10
20-29	18	25	22	25	27	28
30-39	25	21	22	23	27	31
40-49	37	43	60	51	44	47
50-59	25	33	38	36	38	38
60-69	13	13	15	16	14	28
70-79	31	20	17	26	11	23
80+	58	51	72	85	81	102
<b>Total</b>	<b>218</b>	<b>216</b>	<b>260</b>	<b>278</b>	<b>253</b>	<b>311</b>



## Traffic Manner of Death: A Subset of Accident

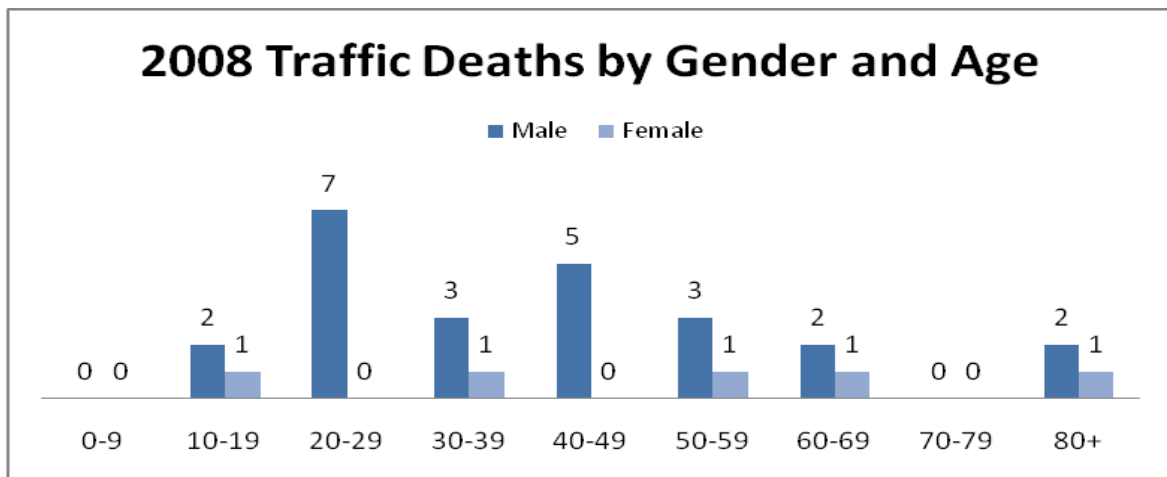
The Snohomish County Medical Examiner investigated 29 fatalities involving motor vehicles in 2008. These deaths occurred along public roadways and were classified as Accidents. Traffic accidents account for 9% of accidental deaths.

### Traffic Accident Deaths (a subcategory of Accident)

	2003	2004	2005	2006	2007	2008
Bicycle	1	1	1			
Motorcycle	2	8	9	11	4	6
Driver	15	9	18	17	13	13
Pedestrian	8	2	7	7	5	7
Passenger	10	4	5	5	7	3
Unknown/Other		1	3	2	2	
<b>Totals</b>	<b>36</b>	<b>25</b>	<b>43</b>	<b>42</b>	<b>31</b>	<b>29</b>

### Traffic Accident Deaths by Age

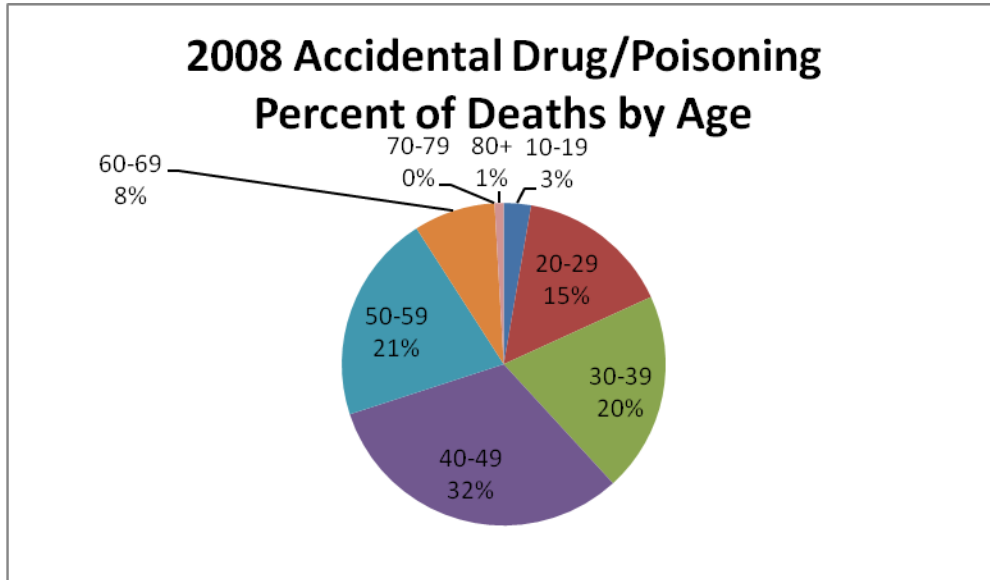
Years of Age	2003	2004	2005	2006	2007	2008
<b>0-9</b>	1	1	2		1	
<b>10-19</b>	4	5	3	8	5	3
<b>20-29</b>	7	6	12	10	6	7
<b>30-39</b>	4	4	3	2	4	4
<b>40-49</b>	7	3	10	6	4	5
<b>50-59</b>	3	3	7	9	6	4
<b>60-69</b>	2	2	3	1	3	3
<b>70+</b>	8	1	3	6	2	3
<b>Total</b>	<b>36</b>	<b>25</b>	<b>43</b>	<b>42</b>	<b>31</b>	<b>29</b>



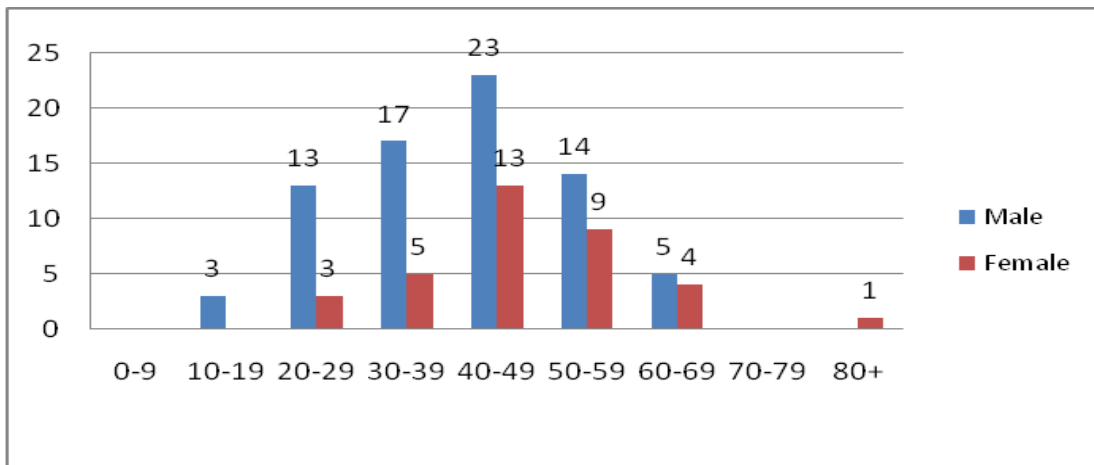


## Accidental Deaths caused by Drugs/Poisons

The cases listed here represent deaths caused by drugs/poisons or where drugs/poisons were identified as a primary contributing factor. (Drug/poison deaths classified by manner as "Suicide" and "Undetermined" are not included.) These cases represent inadvertent (unintentional) death or cases of death occurring under poorly defined circumstances. Because of the inherent private and secretive nature of drug use, the exact circumstances leading to fatal drug toxicity are often not clearly defined. In 2008, there are 110 drug caused deaths with the manner classified as "Accident".



## 2008 Accidental Drug / Poisoning Deaths by Gender and Age

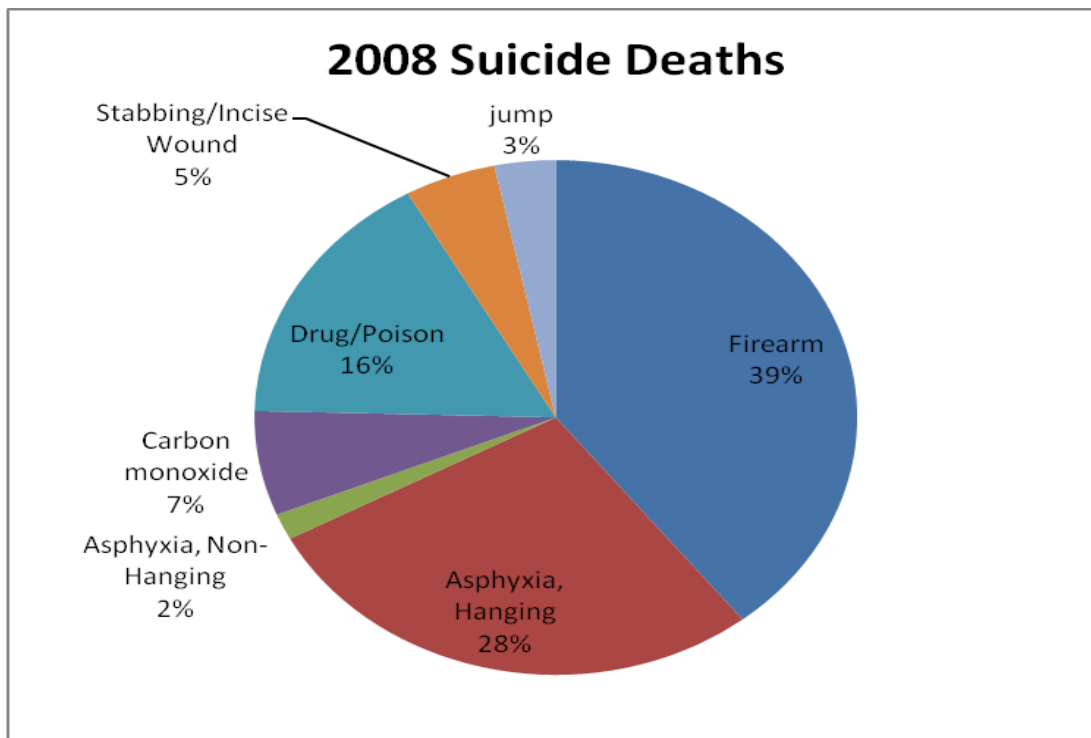


## Manner of Death: Suicide

A death is classified as suicide when it is the result of non-accidental self-inflicted injury or injuries. Suicide deaths accounted for 9% of deaths investigated in 2008. The analysis of suicide as a manner of death is circumstance-dependent. Intent may be explicit or inferred such as when the victim's actions carried a high risk of death or self harm and the victim acted with the knowledge that their acts may cause self-harm or with acceptance of the risk of serious injury or death.

### Suicide by Cause of Death

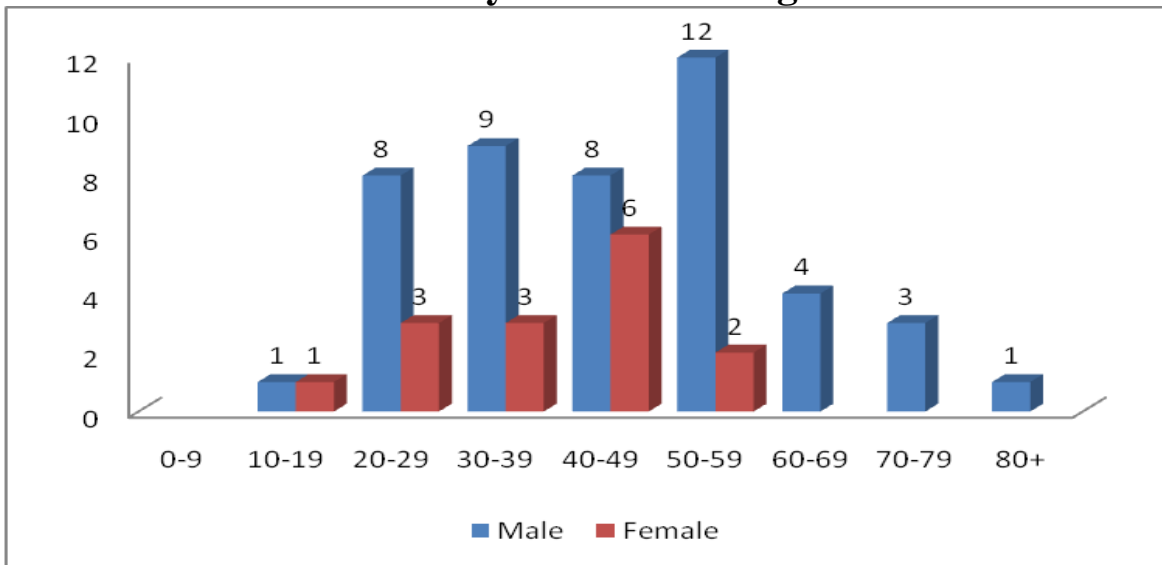
	2003	2004	2005	2006	2007	2008
Firearm	35	37	39	31	25	24
Asphyxia, Hanging	16	15	11	15	21	17
Asphyxia, Non-Hanging	1	5	2	3	6	1
Carbon monoxide	3	2	5	4	4	4
Drug/Poison	15	13	11	10	15	10
Stabbing/Incised Wound				2	1	3
Jump		3				2
Drown		2				
Vehicle or Train	1		1			
<b>Total</b>	<b>71</b>	<b>77</b>	<b>69</b>	<b>65</b>	<b>72</b>	<b>61</b>



### Suicide Deaths by Age

Years of Age	2003	2004	2005	2006	2007	2008
0-9						
10-19	4	3	4	5	2	2
20-29	10	9	11	8	13	11
30-39	13	9	11	15	10	12
40-49	18	24	9	18	24	14
50-59	11	14	17	10	10	14
60-69	9	7	7	6	8	4
70-79	5	6	5	2	1	3
80+	1	5	5	1	4	1
Total	71	77	69	65	72	61

### 2008 Suicide Deaths by Gender and Age

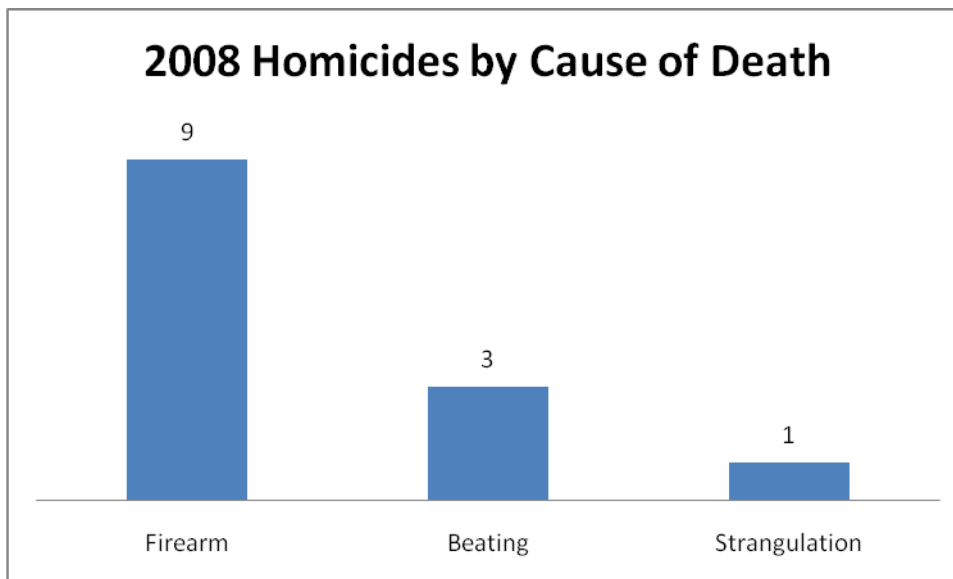


## Manner of Death: Homicide

When the life of a person is taken by another through violent means, the death is classified as Homicide. There were 13 deaths classified as Homicide in Snohomish County in 2008.

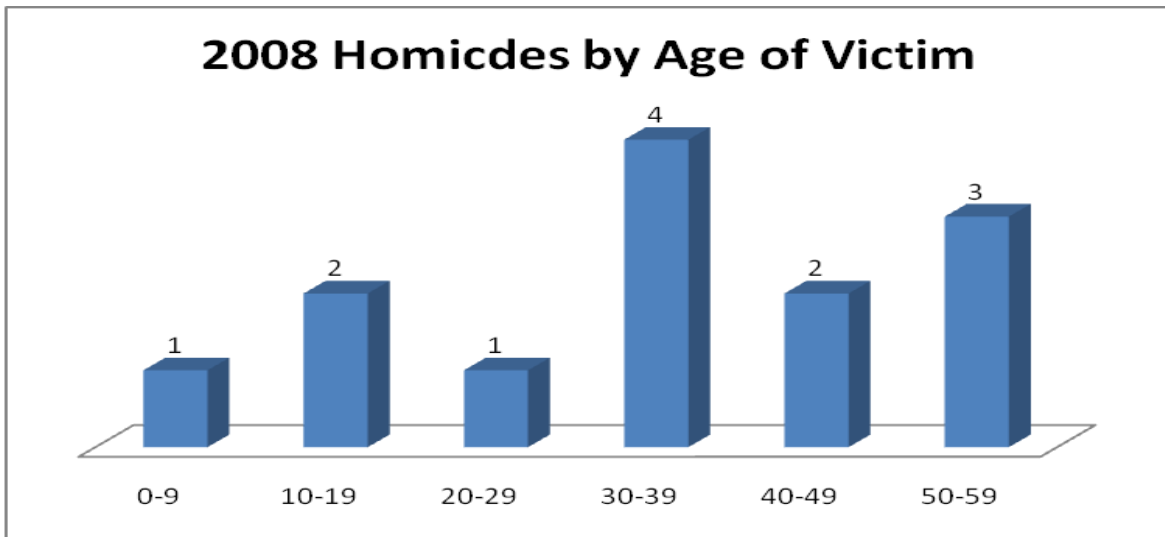
### Homicides by Cause of Death

	2003	2004	2005	2006	2007	2008
Firearm	6	12	12	9	13	9
Beating	2	1	4	5	4	3
Stabbing	2	1	4	1	1	
Strangulation	2			1	1	1
Drugs		2				
Other		2				
<b>Total</b>	<b>12</b>	<b>18</b>	<b>20</b>	<b>16</b>	<b>19</b>	<b>13</b>



### Homicides by Age of Victim

Years of Age	2003	2004	2005	2006	2007	2008
0-9	1	2	1		1	1
10-19	3	2		4	5	2
20-29	2	5	4	5	4	1
30-39	2	4	6	2	2	4
40-49	2	3	6	2	2	2
50-59	2			1	1	3
60-69			3		1	
70-79					2	
80+		2			1	
Total	12	18	20	16	19	13



## Manner of Death: Undetermined

When very little information is available about the circumstances surrounding death (e.g., partial skeletal remains) or where known information equally supports, or conflicts with, more than one manner of death, the death is classified as Undetermined.

### Undetermined by Cause of Death

<b>Cause</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Asphyxia	1	3			1	
Blunt impact	3			3	1	
Drowning	3	2		1	1	1
Drug / Poison	7	3	3	1	6	4
Unexpected Infant Death	3	1		3	9	2
Stabbing	5				1	
Other/Undetermined		4	9	4		1
<b>Total</b>	<b>22</b>	<b>13</b>	<b>12</b>	<b>12</b>	<b>19</b>	<b>8</b>

### Undetermined by Age

<b>Years of Age</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
0-9	4	1	1	3	9	3
10-19	3	1		2	2	1
20-29	3	1	1	1	2	
30-39		1	2	1		
40-49	7	4	2	2	1	2
50-59	5	4	2	2	3	2
60-69			1	1	2	
70-79		1	3			
80+						
<b>Total</b>	<b>22</b>	<b>13</b>	<b>12</b>	<b>12</b>	<b>19</b>	<b>8</b>